

North America – Climate, Vegetation, Wildlife, part 1

(Summary)

from the film *North America – Climate, Vegetation, and Wildlife*, Mexus Education, Ltd.

- North America lies entirely in the Northern Hemisphere and the width of the continent is maximum in the **middle latitudes** and so most of the continent lies in the **temperate zone**.
- A small part of North America lies south of the **Tropic of Cancer**. Southern Mexico, the countries of Central America, and the Caribbean islands have a **sub-tropical** climate. The Arctic Circle passes through the extreme north, a region which is extremely cold. The large size of the continent results in great extremes of temperatures in most parts of the continent. Thus, the summers are hot and winters are cold.
- The **Western Cordilleras** as well as the **Eastern Highlands** run parallel to the coast. They cut off the influence of the ocean from reaching the interior to a great extent.
- Ocean **currents** affect the temperature and rainfall along the coastal regions. The cold **Labrador Current** in the northeast keeps the adjoining coast frozen in winter.
- The cool **California Current** in the southwest lowers the temperatures along the coast. Winds blowing over this current get cooled and so pick up little moisture and bring little rainfall.
- The warm **Alaska Current** in the northwest warms the adjoining coastal regions. Winds blowing over these currents are also warm and so their ability to absorb moisture increases. These winds bring heavy rainfall throughout the year.
- The **Great Lakes** are like the ocean. French missionaries, gazing across a seemingly limitless horizon of water in the 17th century, thought they had found the ocean. They called them "Sweetwater Seas".
- In the Great Lakes region cluster the heaviest concentration of industries. Large quantities of minerals are found here. The lake waters provide inexpensive transportation. Large seafaring ships can reach the interior since the lakes are connected to the Atlantic Ocean by the St. Lawrence Seaway.

North America can be divided into ten **climatic regions**.

The Tundra

- The first such climatic region is the **Tundra** region. The extreme northern part of North America that lies beyond the **Arctic Circle** has very cold climatic conditions. It includes the northern coast of Canada and the northern **islands**.
- In this region, winters are long and very cold, while summers are short and cool. Rainfall is scanty and most of the precipitation is in the form of snow.
- The vegetation here is sparse as the ground remains frozen throughout the year. **Mosses** and **lichens** grow here. This kind of vegetation can withstand extreme cold and survive on very little moisture. It can also remain alive under snow.
- During the short summer, the land looks bright with flowers. In some places, stunted **shrubs** are also seen. Trees cannot grow here because the surface is frozen in winter and the subsoil remains permanently frozen.
- Animals that are found here usually have thick fur outside and a woolly undercoat to keep them warm. The Arctic Fox, for instance, has grey fur in summer, but it turns white in winter. Thick layers of fat give additional protection as well as providing food reserves for winter.
- The reindeer is the most important animal of the tundra. It is well adapted to the severe cold of the tundra region. Its thick hair and the air cells in each hair make an excellent protection against the cold.
- The long and flat hooves of the reindeer are suitable for traveling across the snow and also for digging in the snow for buried vegetation. The reindeer also provides meat and milk. Its skin is used for clothing and tents, and bones as needles and other tools. The internal organs of the reindeer provide vitamins and salts needed by the human body.
- The other common animals are the musk ox, the polar bear, wolverine, sable, and the blue fox.
- Whales, walrus, seals, and fish are also found in the seas bordering the coast.

The Taiga

- The second type of climatic region found here is the **Taiga** or **Coniferous** Forest Belt. This region forms a belt from the Pacific coast in the west to the Atlantic coast immediately south of the Tundra. It includes Alaska and most of Canada.
- In this region, the winters are very cold and severe and last for about seven months. The summers are warm and short. Most of the **precipitation** is in the form of snow.
- The vegetation consists of **coniferous** trees. These are **evergreen** trees, i.e. they do not shed all their leaves each year.
- A coniferous tree bears woody cones, hence the name coniferous. Since the trees are conical in shape, the snow slides off its branches easily, preventing damage to the trees.
- The leaves are needle-shaped, and so the loss of water through evaporation is reduced, since the surface area of the leaf is reduced. Hence, they are able to survive the long winter when water and nutrients are not easily available.
- The common trees found here are the pine, fir, cedar, and spruce. They are adapted to survive the severe long winters.
- The coniferous forests are of great commercial importance. Large areas of a single kind of tree grow together. In other words, trees grow in social strands, making lumbering operations easy.
- There is little undergrowth to hinder transportation since the ground freezes and so plants with short roots cannot survive.
- During winter, which is the season for lumbering, the ice and snow make it easy to transport the logs of wood.
- Coniferous trees yield softwood which is used to manufacture paper, furniture, doors, windows, plywood, sporting goods, toys, and matchsticks.

The Prairies

- Prairies are extensively cultivated. Large quantities of maize, wheat, soybeans, and barley are grown here.
- There are very few animals in this region and most of them are small. the beaver, ermine, fox, sable, skunk, and raccoon yield fur. Caribou, deer, moose, elk, as well as brown, black, and grizzly bears are common.
- The **rivers** and **streams** here are full of fish. Birds like the grouse and woodpecker are also found here.
- The climatic region of the **Prairies** or the **Temperate Grasslands** is found in the interior **lowlands** in the heart of the continent. South-central Canada and most of the central USA comes under the influence of this type of climate. This region has extremes of temperature since it is far away from the moderating influence of the sea. Such a climate is also known as the **Continental** type of climate.
- Winters are very cold with plenty of snow, while the summers are quite hot. Rainfall is moderate and mostly occurs in the summer season. It decreases from east to west.
- Coyotes, gophers, rabbits, prairie falcon, and prairie dogs are the major animals that are found here. Bison (American Buffalo) is the most important animal for the Native Americans and once dominated this region. It became almost extinct due to indiscriminate hunting, but is now a protected animal.